Claims

I claim as my invention:

1. A device for assisting in the personalized treatment of diabetes by a patient, the device comprising:

a memory for storing an individualized reprogrammable management plan for determining dosages of a medication and for storing individualized real-time patient data for use by the plan;

a connection for receiving real-time blood-glucose levels in the patient from a glucometer, to produce a portion of the patient data;

an input device for receiving another portion of the patient data directly from the patient, the other portion including carbohydrate intake;

a processor for determining a contemporaneous dosage of the medication by applying the individualized plan to at least some of the data in the memory;

an output device for returning the dosage;

a communications port for downloading the reprogrammable treatment plan into the memory;

one or more enclosures for the foregoing, in an overall portable package sufficiently small and light to be carried about by the patient.

2. The device of claim 1 where the memory further stores past patient data.

3. The device of claim 2 where the past patient data includes past blood-glucose levels.

4. The device of claim 3 where the past patient data further includes past carbohydrate intake and past dosage amounts.

5. The device of claim 4 further comprising programming for presenting patient glucose values with concurrent values of medication dosage and carbohydrate intake.

6. The device of claim 1 further including a real-time clock for producing time data associable with at least some of the patient data.

7. The device of claim 1 further comprising a modem for communicating data including at least some of either or both the patient data and the management plan.

8. The device of claim 1 where the portable package has only a single integral enclosure.

9. The device of claim 8 where the single enclosure further includes the glucometer.

10. The device of claim 8 where the single enclosure further encloses a power supply.

11. The device of claim 1 where the portable package includes multiple enclosures, the glucometer residing in a separate one of the enclosures.

12. The device of claim 11 further including an accessory slot in another one of the enclosures, and where the glucometer communicates with the processor via the accessory slot.

13. The device of claim 12 where the memory, input device, processor, output device, and accessory slot are located in a personal digital assistant.

14. The device of claim 1 further comprising a database of carbohydrate values for different foods, the database being accessible via the output device.

15. A machine-implemented method for assisting a patient in managing the treatment of diabetes, comprising:

loading a treatment management plan personalized for a particular patient into a device small enough to be carried about by the patient;

measuring a contemporaneous blood-glucose level of the patient;

receiving contemporaneous data directly from the patient, at least some of the input data concerning carbohydrate intake;

executing the plan upon a measurement of the condition and upon the received patient data so as to determine an insulin dosage for contemporaneous administration to the patient;

outputting the dosage.

16. The method of claim 15 where the contemporaneous blood-glucose level is received directly from a glucometer.

17. The method of claim 15 further comprising storing past values of at least some of the contemporaneous data.

18. The method of claim 15 further comprising recalling at least some of the stored contemporaneous data.

19. The method of claim 15 further comprising receiving history data from the patient.

20. The method of claim19 where the history data includes ketone test results.

21. The method of claim 15 where the dosage is displayed to the patient for administration.

22. The method of claim 15 where the dosage is output directly to a device capable of administering the medication.

23. A machine-readable medium bearing instructions and data for carrying out the method of claim 15 on a digital data processor.

24. A machine-implemented method for assisting a patient in managing the treatment of diabetes, comprising:

storing a template of a management plan for administration of a medication by the patient;

entering values of variables in the management plan so as to personalize the plan for the individual patient;

downloading the personalized management plan to a portable device capable of executing the plan in conjunction with other data entered by the patient on a real-time basis in order to determine dosages of the medication on a real-time basis after the download.

25. The method of claim 24 where at least some of the values of the variables are determined from non-realtime diagnostic tests of the patient.

26. The method of claim 25 further comprising receiving stored patient data from the portable device, and where the management plan is personalized at least partially from the received data.

27. The method of claim 25 further comprising, after downloading the management plan:

receiving stored patient data from the portable device;

revising the management plan in response to the uploaded data;

downloading the revised plan to the portable device.

28. The method of claim 25 further comprising receiving uploaded patient data from the portable device over a network.

29. The method of claim 24 further comprising displaying at least some of the stored patient data directly to the patient, and receiving revisions to the management plan directly from the patient.

30. The method of claim 24 further comprising generating the stored template according to an algorithm for determining dosage of the medication.